IN THE CLAIMS:

Kindly replace the claims with the following:

1. (Currently amended) An image processing device, comprising:

an input which receives a stereo pair of images;

a foreground extractor coupled to the input which compares location of like pixel information in each image to determine which pixel information is foreground pixel information and which pixel information is background pixel information;

a DCT block classifier coupled to the foreground extractor which determines which DCT blocks of at least one of the images contain a threshold amount of foreground information; and

an encoder coupled to the DCT block classifier which encodes the DCT blocks having the threshold amount of foreground information with a first high level of quantization and which encodes the DCT blocks having less than the threshold amount of foreground information as background information at a second lower quantization level relative to said first high level of quantization, wherein at least a majority of a bandwidth is encoded at the first high quantization level, and said encoder provides bit stream information for decoding of both the high level of quantization and lower level of quantization that are encoded; and

wherein a contour of a participant whose image is at least part of the stereo pair of images is not represented by a precise number of pixels but rather said contour is defined by a plurality of 8 X 8 DCT blocks; and

wherein a threshold is provided to determine whether an 8 X 8 DCT block is to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level of quantization without varying an encoding rate of the second lower level of quantization to accommodate an encoding rate of the first high level.

2. (Original) The image processing device as claimed in claim 1, wherein the stereo pair of images are received from a stereo pair of cameras spaced closely from one another in a video conference system.

3. (Original) The image processing device as claimed in claim 1, wherein the foreground extractor computes the difference in location of like pixels in each image and selects the foreground pixels as those pixels whose difference in location falls above a threshold distance.

4. (Currently amended) An image processing device, comprising:

an input which receives a stereo pair of images;

a foreground extractor which detects foreground pixel information from the stereo pair of images; and

an encoder coupled to the foreground extractor which encodes the foreground pixel information at a first high level of quantization and which encodes background pixel information at a second lower level of quantization relative to said

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first high level of quantization, wherein at least a majority of a bandwidth is encoded at

the first high level of quantization,

wherein said encoder provides bit stream information for decoding of both the

high level of quantization and lower level of quantization that are encoded; and

wherein a contour of a participant whose image is at least part of the stereo

pair of images is not represented by a precise number of pixels but rather said contour is

defined by a plurality of 8 X 8 DCT blocks; and

wherein a threshold is provided to determine whether an 8 X 8 DCT block is

to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level

of quantization without varying an encoding rate of the second lower level of

quantization to accommodate an encoding rate of the first high level.

5. (Original) The image processing device as claimed in claim 4, wherein the

foreground extractor computes the difference in location of like pixels in each image and

selects the foreground pixels as those pixels whose difference in location falls above a

threshold distance.

6. (Original) The image processing device as claimed in claim 4, wherein the

foreground pixel information is defined in terms of entire 8X8 blocks of DCT

coefficients.

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7. (Currently amended) An image processing system, comprising:

a stereo pair of cameras for taking a stereo pair of images;

a foreground extractor which detects foreground pixel information from the stereo pair of images; and

an encoder coupled to the foreground extractor which encodes the foreground pixel information at a first high level of quantization and which encodes background pixel information at a second lower level of quantization relative to said first high level of quantization; wherein at least a majority of a bandwidth is encoded at the first high quantization level, wherein said encoder provides bit stream information for decoding of both the high level of quantization and lower level of quantization that are encoded; and

wherein a contour of a participant whose image is at least part of the stereo pair of images is not represented by a precise number of pixels but rather said contour is defined by a plurality of 8 X 8 DCT blocks; and

wherein a threshold is provided to determine whether an 8 X 8 DCT block is to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level of quantization without varying an encoding rate of the second lower level of quantization to accommodate an encoding rate of the first high level.

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8.   (Currently amended) A method of encoding a stereo pair of images, comprising:

receiving the stereo pair of images;

extracting foreground information from the stereo pair of images; and

encoding the foreground information at a first high quantization level and encoding background information of the stereo pair of images at a second lower quantization level relative to said first high level of quantization; wherein at least a majority of a bandwidth is encoded at the first high quantization level, wherein said encoding step includes providing bit stream information for decoding of both the high level of quantization and lower level of quantization;

wherein a contour of a participant whose image is at least part of the stereo pair of images is not represented by a precise number of pixels but rather said contour is defined by a plurality of 8 X 8 DCT blocks; and

wherein a threshold is provided to determine whether an 8X 8 DCT block is to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level of quantization without varying an encoding rate of the second lower level of quantization to accommodate an encoding rate of the first high level.

9.   (Original) The method in accordance with claim 8, wherein the step of extracting includes the following steps:

identifying the locations of like pixels in each of the stereo pair of images;

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calculating the difference between the locations of like pixels; and

determining for each set of like pixels whether the difference between locations falls above a threshold difference, and if so identifying those pixels as foreground information.

10. (Original) The method in accordance with claim 8, wherein the encoding step encodes an entire 8 X 8 block of DCT coefficients as foreground information if at least a predetermined number of foreground pixels are within the 8 X 8 block, otherwise the entire 8 X 8 block of DCT coefficients is encoded as background information.

11. (Currently amended) Computer-executable process steps to process image data from a stereo pair of images, the computer-executable process steps being stored on a computer-readable medium and comprising:

a foreground extracting step to detect foreground pixel information from the stereo pair of images; and

an encoding step for encoding foreground pixel information of at least one image at a first high quantization level and for encoding background pixel information of the at least one image at a second lower quantization level relative to said first high level of quantization, wherein said encoding step provides bit stream information for decoding of both the high level of quantization and lower level of quantization;

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wherein at least a majority of a bandwidth is encoded at the first high

quantization level, and

wherein a contour of a participant whose image is at least part of the stereo

pair of images is not represented by a precise number of pixels but rather said contour is

defined by a plurality of 8 X 8 DCT blocks; and

wherein the encoding step uses a threshold to determine whether an 8 X 8

block is to be encoded at [[a]] the first high level of quantization or [[a]] the second

lower level of quantization without varying an encoding rate of the second lower level of

quantization to accommodate an encoding rate of the first high level.

12. (Previously presented) The computer-executable process steps as claimed

in claim 11, wherein the foreground extracting step determines which 8 X 8 DCT

blocks contain at least a predetermined amount of foreground pixel information; and

wherein the encoding step encodes an entire 8 X 8 block of DCT coefficients at the

first higher quantization level if the 8 X 8 block of DCT coefficients contains the

predetermined amount of foreground pixel information.

13. (Previously presented) The computer-executable process steps as claimed

in claim 11 or 12, wherein the step of foreground extracting computes the difference in

location of like pixels in each image and selects the foreground pixels as those pixels

whose difference in location falls above a threshold distance.

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14. (Currently amended) An apparatus for processing a stereo pair of images,

the apparatus comprising:

a memory which stores process steps; and

a processor which executes the process steps stored in the memory so as (i)

to extract foreground from the stereo pair of images and (ii) to encode the foreground

information at a first high level of quantization and to encode background at a second ~~low~~

lower level of quantization, wherein at least a majority of a bandwidth is encoded at the

first quantization level, and said encoder provides bit stream information for decoding of

both the high level of quantization and lower level of quantization;

wherein a contour of a participant whose image is at least part of the stereo

pair of images is not represented by a precise number of pixels but rather said contour is

defined by a plurality of 8 X 8 DCT blocks; and

wherein a threshold is provided to determine whether an 8 X 8 DCT block is

to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level

of quantization without varying an encoding rate of the second lower level of

quantization to accommodate an encoding rate of the first high level.

15. (Currently amended) An apparatus for processing a stereo pair of images,

the apparatus comprising:

a memory which stores process steps; and

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a processor which executes the process steps stored in the memory so as (i) to extract foreground information from the stereo pair of images in the form of foreground 8 X 8 DCT blocks of coefficients, and

(ii) to encode the foreground 8 X 8 DCT blocks of coefficients at a first high level of quantization and to encode background 8 X 8 DCT blocks of coefficients at a second lower level of quantization;

wherein a threshold is provided to determine whether a block is to be encoded at [[a]] the first high level of quantization or [[a]] the second lower level of quantization without varying an encoding rate of the second lower level of quantization to accommodate an encoding rate of the first high level.

16. (Previously presented) An apparatus for processing a stereo pair of images, the apparatus comprising:

a memory which stores process steps; and

a processor which executes the process steps stored in memory so as

(i) to calculate the difference in location of like pixels in each image,

(ii) if the difference in location is above a set threshold the pixel information is identified as foreground pixel information, if below the set threshold the pixel information is determined to be background pixel information,

(iii) to determine whether each 8 X 8 DCT block contains a particular amount of foreground information and

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(iv) to encode those 8 X 8 DCT blocks having at least the particular amount of foreground pixel information at a first higher level of quantization and those 8 X 8 DCT blocks having less than a threshold level ~~the particular amount~~ of foreground pixel information at a second lower level of quantization.

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